

**REMARKS**

In the last Office Action,<sup>1</sup> the Examiner rejected claims 4-12 and 16-24 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; rejected claims 1, 13, and 25 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,946,658 to Miyazawa et al. ("Miyazawa") in view of Garner et al., "A Theory of Word Frequencies and Its Application to Dialogue Move Recognition" ("Garner"); rejected claims 3 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of U.S. Patent No. 6,173,266 to Marx et al. ("Marx") and U.S. Patent No. 5,577,165 to Takebayashi et al. ("Takebayashi"); rejected claims 4-5 and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of U.S. Patent No. 6,185,527 to Petkovic et al. ("Petkovic"); rejected claims 6 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Petkovic and further in view of U.S. Patent No. 6,505,162 to Wang et al. ("Wang"); rejected claims 7 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Petkovic and further in view of Marx; rejected claims 8, 12, 20, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Petkovic and further in view of U.S. Patent No. 6,236,968 to Kanevsky et al. ("Kanevsky"); rejected claims 10 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Petkovic and Kanevsky further in view of Wang; rejected claims 11 and 23

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<sup>1</sup> The Office Action contains statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Petkovic and Kanevsky further in view of Marx; and allowed claims 2, 9, 14, and 21.

By this amendment, Applicants have amended the specification on page 15 and claims 1, 3, 4, 8, 13, 15, 16, 20, and 25. Claims 1-25 are currently pending. Applicants appreciate the Examiner's indication of allowable subject matter in claims 2, 9, 14, and 21, and respectfully traverse the rejections of claims 1, 3-8, 10-13, 15-20, and 22-25 for the following reasons.

**A. Claim Rejections Under 35 U.S.C. § 112, First Paragraph**

Claims 4-12 and 16-24 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner alleged that claims 4, 8, 16, and 20 were amended to include new subject matter because page 15 and Fig. 2 of the disclosure “appears to only disclose a database with different data fields, which is not functionality of classifying the symbol strings.” See Final Office Action, page 3. The Examiner specifically pointed to the claim recitation, “classifying said second input symbol strings according to subject matter,” in claim 4 (and similar recitations in claims 8, 16, and 20) as introducing new subject matter. See Final Office Action, page 3.

Applicants respectfully dispute the allegation of new subject matter in claims 4, 8, 16, and 20 because the disclosure, including Figs. 3 and 4, provides adequate support for the claim amendments. However, in order to advance the prosecution of the application, Applicants have amended claims 4, 8, 16, and 20 to remove the claim recitations that allegedly introduce new subject matter. Therefore, Applicants respectfully submit that the § 112, first paragraph, rejection of independent claims 4, 8,

16, and 20, and claims 5-7, 9-12, 17-19, and 21-24, which depend from independent claims 4, 8, 16, and 20, should be withdrawn.

In addition, amended claim 4 now recites, among other things: “an event data storage section storing said second input symbol strings as event data in association with corresponding attribute identifiers.” Amended claims 8, 16, and 20 contain similar recitations. Support for these claim amendments may be found in Applicants’ original disclosure.

For example, page 15 and Figs. 3 and 4 of the original disclosure describe an input symbol string (e.g., “SHINJO”) being stored as event data in association with a corresponding attribute identifier (e.g., attribute ID 1001, identified in Fig. 4 as “NAME OF PLAYER: BASEBALL”). Therefore, Applicants respectfully submit that the amendment to the specification and amended claims 4, 8, 16, and 20 do not include any new subject matter.

**B. Claim Rejections Under 35 U.S.C. § 103(a)**

**1. Claims 1, 13, and 25**

Applicants respectfully traverse the rejection of claims 1, 13, and 25 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Garner. No *prima facie* case of obviousness has been established with respect to amended claims 1, 13, and 25 for at least the reason that the references, taken alone or in combination, do not teach or suggest each and every element recited in the claims.

For example, amended claim 1 recites, among other things: “a conversation characteristic control section grasping conversation characteristics of said user and changing said output symbol string in accordance with the grasped conversation

characteristics, the grasped conversation characteristics based on the continuity of conversation with respect to a specific topic.”

The Examiner properly observed that Miyazawa fails to disclose “the grasped conversation characteristics based on a word used by the user with high frequency, . . . .” See Final Office Action, page 5. In an attempt to remedy this deficiency, the Examiner proposed combining Miyazawa with a theory of word frequencies and dialogue move recognition disclosed by Garner. See id.

Garner is mainly directed to improved “dialogue move recognition” techniques, but makes mention of a topic identification application. See Garner at page 1880. For example, Garner discloses that dialogue move recognition and topic identification are distinct spoken language applications (see Abstract) and that topic identification employs a similar word-based methodology (see Section 2.2, entitled “Methodology”). However, Applicants could find no further explanation of any topic identification techniques in Garner. Moreover, dialogue move recognition is distinct from topic identification because, rather than identifying topics in a conversation, it recognizes “moves” in a conversation (e.g., “as a game of chess consists of alternate moves”). See Garner, Section 1, entitled “Introduction.” Because Garner makes only passing mention of a topic identification application and because dialogue move recognition does not identify topics in a conversation, Garner fails to disclose “the grasped conversation characteristics based on the continuity of conversation with respect to a specific topic,” as claimed.

Amended claims 13 and 25, although of different scope, recite elements similar to those of claim 1 discussed above. Accordingly, the 35 U.S.C. § 103(a) rejection of claims 1, 13, and 25 should be withdrawn.

## **2. Claims 3 and 15**

Applicants respectfully traverse the rejection of claims 3 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Marx and Takebayashi. No *prima facie* case of obviousness has been established with respect to amended claims 3 and 15 for at least the reason that the references, taken alone or in combination, do not teach or suggest each and every element recited in the claims.

For example, amended claim 3 recites, among other things: “wherein said extracted synonyms and relevant words are referred to by the conversation pattern processing section as variables when outputting the output symbol string.”

The Examiner properly observed that Miyazawa fails to disclose “an association function section extracting the synonyms and relevant words synonymous with and relevant to words uttered by said user from said storage section based on said input symbol string from said conversation pattern processing section, and outputting said extracted synonyms and relevant words to said conversation pattern processing section.” See Final Office Action, page 7. In an attempt to remedy this deficiency, the Examiner proposed combining Miyazawa with processing techniques that use synonyms to recognize spoken user responses disclosed by Marx. See id. at page 8.

Marx discloses a system that uses synonyms from a vocabulary file to “understand and identify a variety of responses.” See Marx at col. 9, lines 30-39. For example, if a user’s response is “correct,” the system of Marx will recognize it as a

synonym for “yes.” A system that uses synonyms to understand and identify *input from a user* does not constitute a system “wherein said extracted synonyms and relevant words are referred to by the conversation pattern processing section as variables when *outputting the output symbol string*,” as claimed. Takebayashi, relied on for its disclosure of using a conversation history in determining input from a user, fails to remedy this deficiency.

Amended claim 15, although of different scope, recites elements similar to those of claim 3 discussed above. Accordingly, the 35 U.S.C. § 103(a) rejection of claims 3 and 15 should be withdrawn.

**3. Claims 4-8, 10-12, 16-20, and 22-24**

Applicants respectfully traverse the rejections of claims 4-8, 10-12, 16-20, and 22-24 under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa in view of Petkovic. No *prima facie* case of obviousness exists with respect to amended claims 4-8, 10-12, 16-20, and 22-24 for at least the reason that the references, taken alone or in combination, do not teach or suggest each and every element recited in the claims.

For example, amended claim 4 recites, among other things: “an event data storage section storing said second input symbol strings as event data in association with corresponding attribute identifiers.”

The Examiner correctly observed in the Office Action dated September 23, 2004 (“previous Office Action”), that Miyazawa fails to expressly disclose “an event data storage section storing said second input symbol strings as event data.” See previous Office Action, pages 8 and 9. Therefore, Miyazawa also fails to expressly disclose “an

event data storage section storing said second input symbol strings as event data *in association with corresponding attribute identifiers*,” as claimed.

In an attempt to remedy the deficiency of Miyazawa, the Examiner proposed combining Miyazawa with a system and method for automatic audio content analysis disclosed by Petkovic. See Final Office Action, pages 10 and 11. However, Petkovic similarly fails to disclose “an event data storage section storing said second input symbol strings as event data in association with corresponding attribute identifiers,” as claimed.

For example, Petkovic discloses classifying “temporal sequences of intervals” of an *audio stream* under meta-pattern genres. See Petkovic, col. 7, line 61 through col. 8, line 20. In contrast, claims 4 and 16 recite “storing . . . input symbol *strings* as event data in association with corresponding attribute identifiers.”<sup>2</sup> Temporal sequences of intervals of an *audio stream* do not contain text and, therefore, cannot constitute “input symbol strings,” as claimed. Moreover, the method disclosed by Petkovic for performing the meta-pattern genre classification depends on identifying silence, speech, music, and speech on music, all of which are more readily identifiable in audio streams as opposed to text. See id., col. 7, lines 52-60.

Petkovic also discloses a speech recognition engine 29 for converting portions of the audio stream into words and indexing the audio stream using the words and weighted word alternatives, thus enabling keyword query-based information retrieval. See col. 8, line 21 through col. 9, line 12. However, indexing an audio stream using

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<sup>2</sup> Claims 8 and 20 similarly recite “storing said received event data in association with corresponding attribute identifiers,” and that the received event data consists of a “symbol *string* from said other interactive system.”

words in the audio stream and weighted word alternatives does not constitute “storing said second input symbol strings as event data in association with corresponding attribute identifiers,” as claimed.

Claims 8, 16, and 20, although of different scope, each recite elements similar to those of claim 4 discussed above. Moreover, Kanevsky, relied on for its alleged disclosure of additional elements recited in claims 8 and 20, fails to remedy the deficiency in Miyazawa and Petkovic identified above. Accordingly, the 35 U.S.C. § 103(a) rejection of claims 4, 8, 16, and 20 should be withdrawn.

Dependent claims 5-7, 10-12, 17-19, and 22-24 depend from and add additional features to independent claims 4, 8, 16, and 20, respectively. Moreover, Wang and Marx, relied on for their alleged disclosure of additional elements recited in claims 6, 7, 12, 18, 19, and 24, each fail to remedy the deficiency in Miyazawa and Petkovic identified above. Accordingly, the 35 U.S.C. § 103(a) rejection of dependent claims 5-7, 10-12, 17-19, and 22-24 should be withdrawn.



**Conclusion**

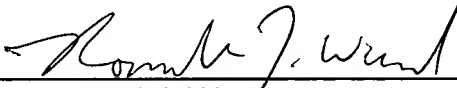
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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